

**Notice of Allowability**

Application No.

10/797,043

Examiner

Lars A Olson

Applicant(s)

YASUDA ET AL.

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☒ The drawings filed on 11 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 05272004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### Reasons for Allowance

1. Claims 1-8 are allowed.
2. The following is an examiner's statement of reasons for allowance. The shift mechanism for an outboard motor as claimed is not shown or suggested in the prior art because of the use of a shift mechanism that is comprised a propeller shaft that is connected to a propeller, forward and reverse gears for rotating said propeller shaft in a forward and reverse direction when engaged with said propeller shaft in response to rotation of a shift rod, a vertical shaft that is connected to an engine and transmits engine output to said propeller shaft through said forward and reverse gears, said vertical shaft being divided into a plurality of shaft members, an electromagnetic clutch that connects and disconnects said shaft members of said vertical shaft, a sensor that generates a signal that is indicative of an instruction to shift inputs from an operator, and a controller that controls the operation of said electromagnetic clutch in response to shift instructions. The prior art also does not show or suggest the use of said shift mechanism in combination with a first electromagnetic clutch that engages said forward gear with said propeller shaft, and a second electromagnetic clutch that engages said reverse gear with said propeller shaft.
3. The prior art as disclosed by Kolb et al. (US 6,485,340), Hallenstvedt et al. (US 6,129,599) and Kanno (US 5,230,643) shows the use of electrically controlled shift and throttle systems for marine propulsion units that include sensors for generating a signal that is indicative of a shift instruction from an operator, and an electronic

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controller for controlling the operation of a clutch mechanism in response to shift instructions. Yasui et al. (US 6,769,524) and Suetake et al. (US 5,911,291) disclose electromagnetic clutches for connecting and disconnecting rotary shafts of a motor vehicle. However, none of the prior art cited shows or suggests the use of a shift mechanism for an outboard motor that is comprised a propeller shaft that is connected to a propeller, forward and reverse gears for rotating said propeller shaft in a forward and reverse direction when engaged with said propeller shaft in response to rotation of a shift rod, a vertical shaft that is connected to an engine and transmits engine output to said propeller shaft through said forward and reverse gears, said vertical shaft being divided into a plurality of shaft members, an electromagnetic clutch that connects and disconnects said shaft members of said vertical shaft, a sensor that generates a signal that is indicative of an instruction to shift inputs from an operator, and a controller that controls the operation of said electromagnetic clutch in response to shift instructions. The prior art also does not show or suggest the use of said shift mechanism in combination with a first electromagnetic clutch that engages said forward gear with said propeller shaft, and a second electromagnetic clutch that engages said reverse gear with said propeller shaft.

### ***Conclusion***

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably


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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (703) 308-9807.

lo

January 25, 2005



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SUPERVISORY PATENT EXAMINER  
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